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## Typical Plant Growth Flat

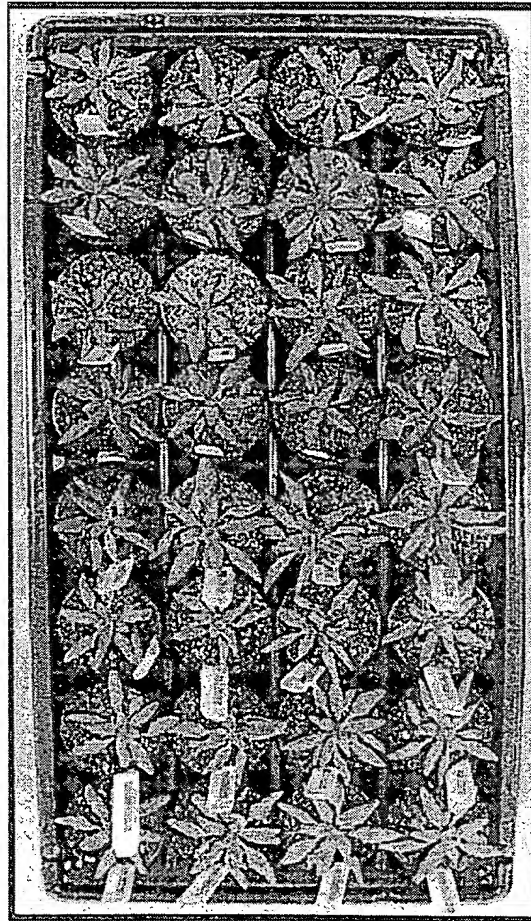


FIG. 1

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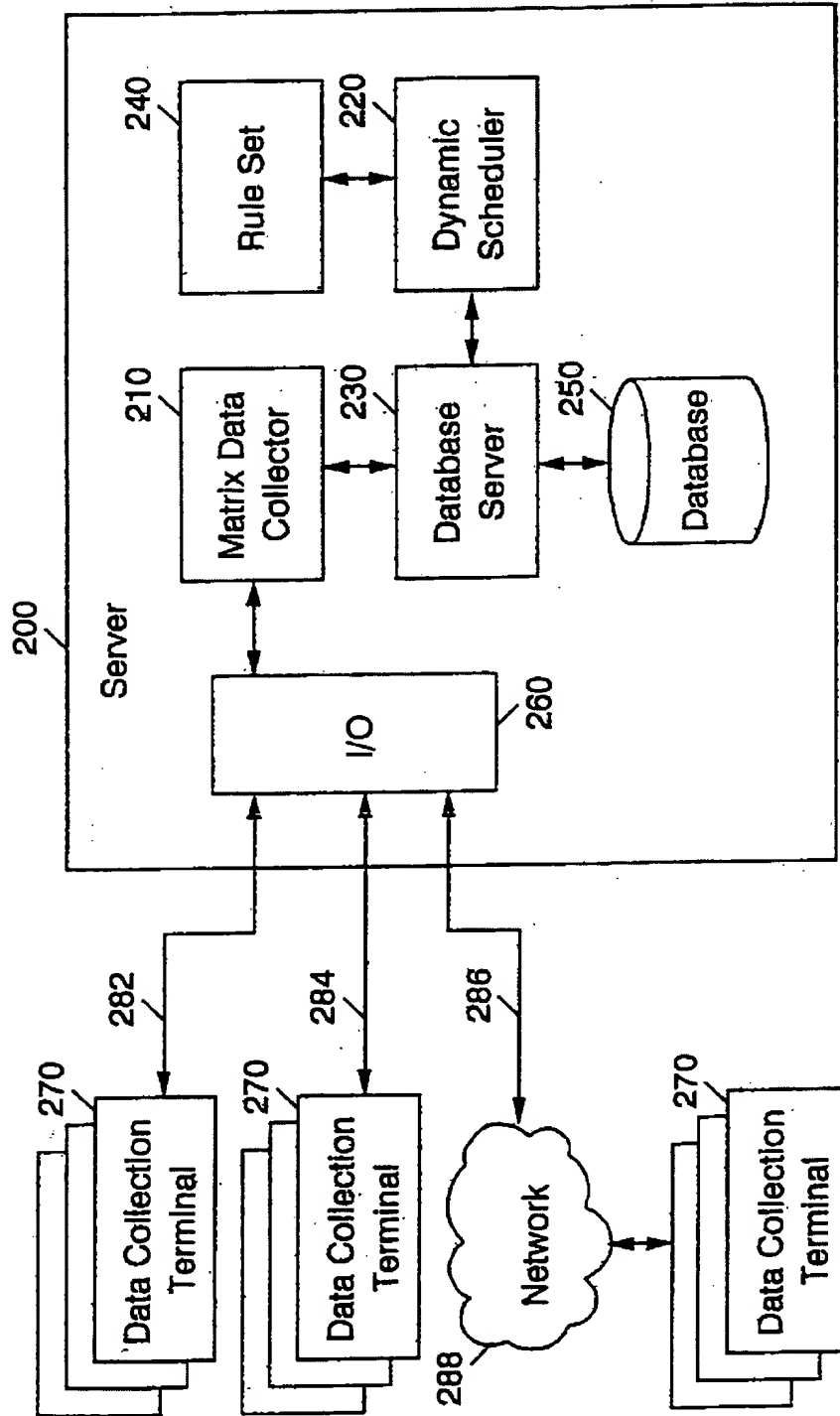


FIG. 2

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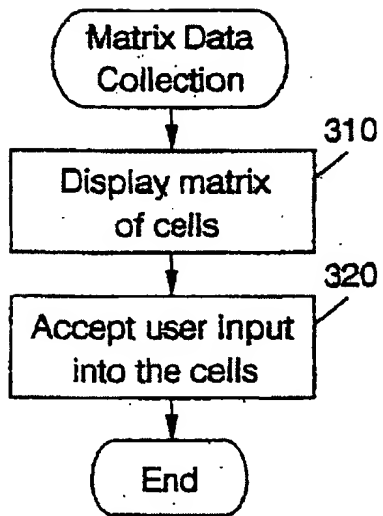


FIG. 3

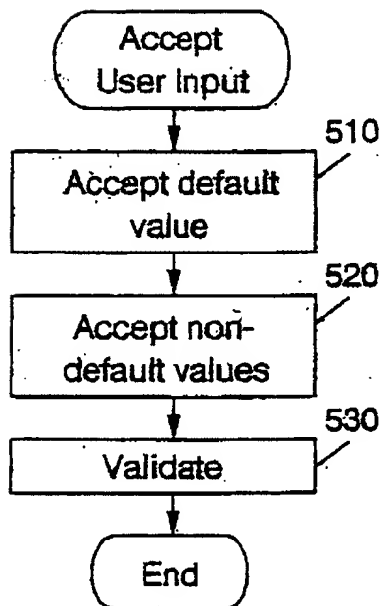


FIG. 5

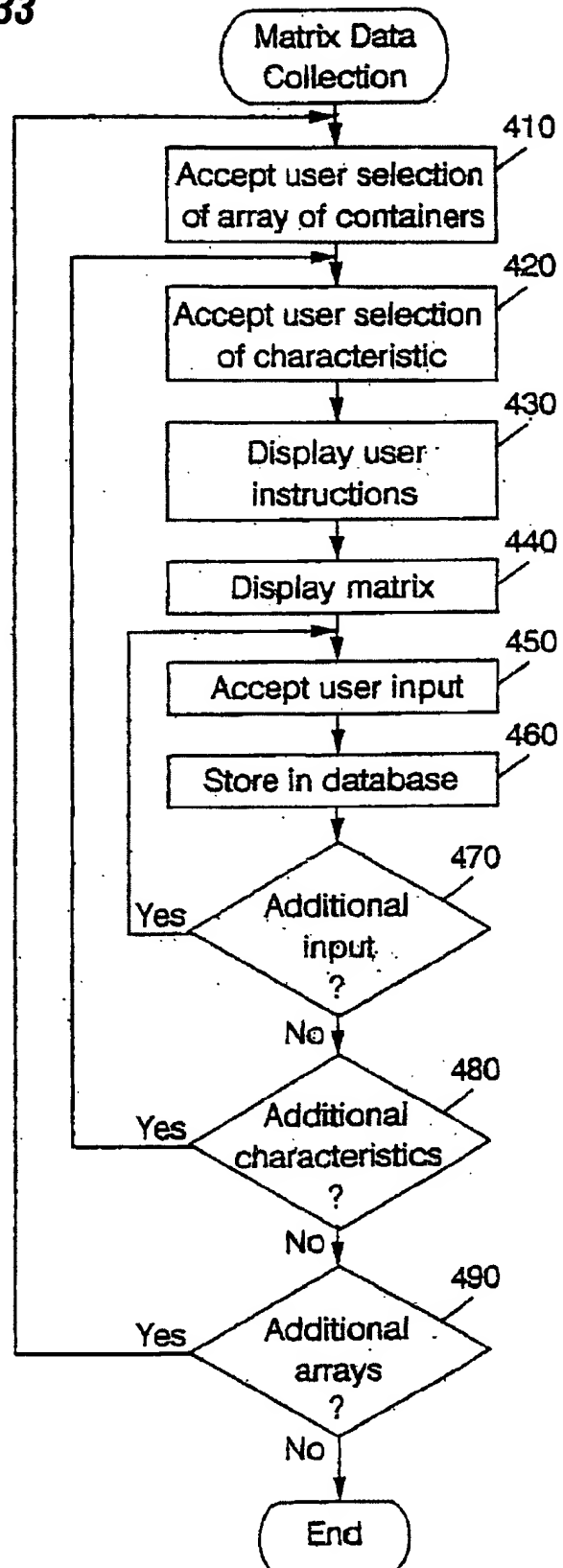


FIG. 4

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**Matrix** File Tools Help

**Selection**

Container ID: 100097081

Operation: 04/02 | ARABID OP-3F-20

Component: Can flower buds be seen?

**Matrix Input**

200049275 <input type="radio"/> Yes <input type="radio"/> No	200049276 <input type="radio"/> Yes <input type="radio"/> No	200049265 <input type="radio"/> Yes <input type="radio"/> No	200049266 <input type="radio"/> Yes <input type="radio"/> No	200049287 <input type="radio"/> Yes <input type="radio"/> No	200049288 <input type="radio"/> Yes <input type="radio"/> No	200049277 <input type="radio"/> Yes <input type="radio"/> No	200049278 <input type="radio"/> Yes <input type="radio"/> No
200049267 <input type="radio"/> Yes <input type="radio"/> No	200049268 <input type="radio"/> Yes <input type="radio"/> No	200049289 <input type="radio"/> Yes <input type="radio"/> No	200049290 <input type="radio"/> Yes <input type="radio"/> No	200049279 <input type="radio"/> Yes <input type="radio"/> No	200049280 <input type="radio"/> Yes <input type="radio"/> No	200049269 <input type="radio"/> Yes <input type="radio"/> No	200049291 <input type="radio"/> Yes <input type="radio"/> No
200049202 <input type="radio"/> Yes <input type="radio"/> No	200049281 <input type="radio"/> Yes <input type="radio"/> No	200049282 <input type="radio"/> Yes <input type="radio"/> No	200049270 <input type="radio"/> Yes <input type="radio"/> No	200049271 <input type="radio"/> Yes <input type="radio"/> No	200049293 <input type="radio"/> Yes <input type="radio"/> No	200049283 <input type="radio"/> Yes <input type="radio"/> No	200049284 <input type="radio"/> Yes <input type="radio"/> No
200049272 <input type="radio"/> Yes <input type="radio"/> No	200049294 <input type="radio"/> Yes <input type="radio"/> No	200049295 <input type="radio"/> Yes <input type="radio"/> No	200049285 <input type="radio"/> Yes <input type="radio"/> No	200049286 <input type="radio"/> Yes <input type="radio"/> No	200049273 <input type="radio"/> Yes <input type="radio"/> No	200049274 <input type="radio"/> Yes <input type="radio"/> No	200049296 <input type="radio"/> Yes <input type="radio"/> No

**Status**

Upload Status

**Commands**

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001034031.0.8

FIG. 6

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File Tools Help

Selection

Container ID

100086141  
100086141  
100086155  
100086170  
100086184  
100086198  
100086212  
100086236  
100086238

Operation

Component

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR [Production]

CDEHAVEN-03130093331.0.7

FIG. 7

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Matrix

File Tools Help

Selection

Container ID

100086141

Operation

▼

\*02/24 | ARABIDOP PLATE 9  
\*02/25 | ARABIDOP PLATE 10  
\*02/26 | ARABIDOP PLATE 11  
\*02/27 | ARABIDOP PLATE 12  
\*02/28 | ARABIDOP PLATE 13  
02/28 | ARABIDOP HS 6R VP  
02/28 | ROOT IMAGE PICTURE  
02/28 | ROSETTE PLATE IMAGE PICTURE

Component

▼

Matrix Input

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR [Production]

CDEHAVEN-03130093331.0.7

FIG. 8

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Matrix

File Tools Help

Selection

Container ID

100086141

Operation

02/28 | ARABIDOP HS 6R VP

Component

Lateral roots per seedling

Root color

Root gravitropic response

Root growth vector

Root shape

Root size

Matrix Input

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR [Production]

CDEHAVEN-03130093331.0.7

FIG. 9

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Matrix

File Tools Help

Selection

Container ID

100086141

Operation

02/28 | ARABID OP HS 6R VP

Component

Lateral roots per seedling

Matrix Input

200050344

200050345

200050346

200050347

200050348

200050349

200050350

200050351

200050352

200050353

Status

Upload Status

Measurement Units for the Component [Lateral roots per seedling], are in Item Count

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR (Production)

CDEHAVEN-03130003330.0.7

FIG. 10



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Matrix

File Tools Help

Selection

Container ID

100086141

Operation

02/28 I ARABID OP HS 6R VP

Component

Root color

Matrix Input

200050344

200050345

200050346

200050347

200050348

200050349

200050350

200050351

200050352

200050353

RED/PURPLE

BROWN

BLACK

YELLOW

GREEN

WILD TYPE

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR [Production]

CDEHAVEN-03130003330.0.7

FIG. 11

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Matrix

File Tools Help

Selection

Container ID

100086141

Operation

02/28 | ROOT IMAGE PICTURE

Component

Picture Taken

Matrix Input

200050344

☒ Yes

☐ No

200050345

☐ Yes

☐ No

200050346

☐ Yes

☐ No

200050347

☐ Yes

☐ No

200050348

☐ Yes

☐ No

200050349

☐ Yes

☐ No

200050350

☐ Yes

☐ No

200050351

☐ Yes

☐ No

200050352

☐ Yes

☐ No

200050353

☐ Yes

☐ No

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

FENRIR [Production]

CDEHAVEN-031300933301.0.7

FIG. 12

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**Matrix** File Tools Help

**Selection**

Container ID: 100097081 Operation: 04/02 | ARABID OP-3F-20 Component: Can flower buds be seen?

**Matrix Input**

200049275	200049276	200049265	200049266	200049287	200049288	200049277	200049278
<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
200049267	200049268	200049289	200049290	200049279	200049280	200049269	200049291
<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
200049202	200049281	200049282	200049270	Set Default Values	Apply	Cancel	200049284
<input type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
200049272	200049294	200049295	200049285	200049274	200049296		
<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input checked="" type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No		

**Status**

Upload Status

CDEHAVEN GARM [Development] CDEHAVEN-0313001034031.0.8

**Commands**

Set Defaults Commit Reset Options Exit

FIG. 13

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**Matrix** File Tools Help

**Selection**

Container ID: 100097081 Operation: 04/02 | ARABID OP-3F-20 Component: Can flower buds be seen?

**Matrix Input**

200049275 Yes <input checked="" type="radio"/> No <input type="radio"/>	200049276 Yes <input type="radio"/> No <input type="radio"/>	200049265 Yes <input type="radio"/> No <input type="radio"/>	200049266 Yes <input type="radio"/> No <input type="radio"/>	200049287 Yes <input type="radio"/> No <input type="radio"/>	200049288 Yes <input type="radio"/> No <input type="radio"/>	200049277 Yes <input type="radio"/> No <input type="radio"/>	200049278 Yes <input type="radio"/> No <input type="radio"/>
200049267 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049268 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049289 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049290 Yes <input checked="" type="radio"/> No <input type="radio"/>	200049279 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049280 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049269 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049291 Yes <input type="radio"/> No <input checked="" type="radio"/>
200049202 Yes <input checked="" type="radio"/> No <input type="radio"/>	200049281 Yes <input checked="" type="radio"/> No <input type="radio"/>	200049282 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049270 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049271 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049293 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049283 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049284 Yes <input type="radio"/> No <input checked="" type="radio"/>
200049272 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049294 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049295 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049285 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049286 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049273 Yes <input type="radio"/> No <input checked="" type="radio"/>	200049274 Yes <input checked="" type="radio"/> No <input type="radio"/>	200049296 Yes <input type="radio"/> No <input checked="" type="radio"/>

**Status**

Upload Status: [Empty Box]

**Commands**

Set Defaults Commit Reset Options Exit

CDEHAVEN GARM [Development] CDEHAVEN-0313001034031.0.8

FIG. 14

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**Matrix**  
File Tools Help

**Selection**  
Container ID: 100084318  
Operation: \*02/18 IARABID OP PLATE 3A  
Component: \*Seed Status

**Matrix Input**

Container ID	Operation	Component
200047232	WILD TY	WILD TY
200047233	WILD TY	WILD TY
200047234	WILD TY	WILD TY
200047235	WILD TY	WILD TY
200047236	WILD TY	WILD TY
200047237	WILD TY	WILD TY
200047238	WILD TY	WILD TY
200047239	WILD TY	WILD TY
200047240	WILD TY	WILD TY
200047241	WILD TY	WILD TY

**Change Input**

Old Value: 200047237 WILD TY  
New Value: 200047237  
Change Reason:   
Apply Cancel

**Status**  
Upload Status:   
CDEHAVEN GARM [Development] CDEHAVEN-0313001034031.0.8

**Commands**  
Set Defaults Commit Reset Options Exit

FIG. 15

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File Tools Help

Selection

Container ID

100084318

Operation

\*02/18|ARABID OP PLATE 3A

Component

\*Seed status

Matrix Input

200047232

WILD TY

200047233

WILD TY

200047234

WILD TY

200047235

WILD TY

200047236

WILD TY

200047237

WILD TY

200047238

WILD TY

200047239

WILD TY

200047240

WILD TY

200047241

WILD TY

Change Input

Old Value

200047238

WILD TY

New Value

200047238

WILD TY

Change Reason

WILD TYPE

NO SEED

MUTANT

KILLED

Apply

Cancel

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001034031.0.8

FIG. 16

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Matrix

File Tools Help

Selection

Container ID

100084318

Operation

\*02/18|ARABID OP PLATE 3A

Component

\*Seed status

Matrix Input

200047232

WILD TY

200047233

WILD TY

200047234

WILD TY

200047235

WILD TY

200047236

WILD TY

200047237

WILD TY

200047238

WILD TY

200047239

WILD TY

200047240

WILD TY

200047241

WILD TY

Change Input

Old Value

200047237

WILD TY

New Value

200047237

MUTAN

Change Reason

CALCULATION CHANGED BY ANOTHER RESULT

CALCULATION ERROR

CLERICAL ERROR

TRANSCRIPTION ERROR

REDUNDANT FILENAME UPLOAD

Apply

Cancel

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001034031.0.8

FIG. 17

Matrix

File Tools Help

Selection

Container ID

100084318

Operation

\*02/181ARABID OP PLATE 3A

Component

\*Seed status

Matrix Input

200047232

WILD TY

200047233

WILD TY

200047234

WILD TY

200047235

WILD TY

200047236

WILD TY

200047237

WILD TY

200047238\*

MUTANT

200047239

WILD TY

200047240

WILD TY

200047241

WILD TY

Status

Upload Status

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001034031.0.8

FIG. 18



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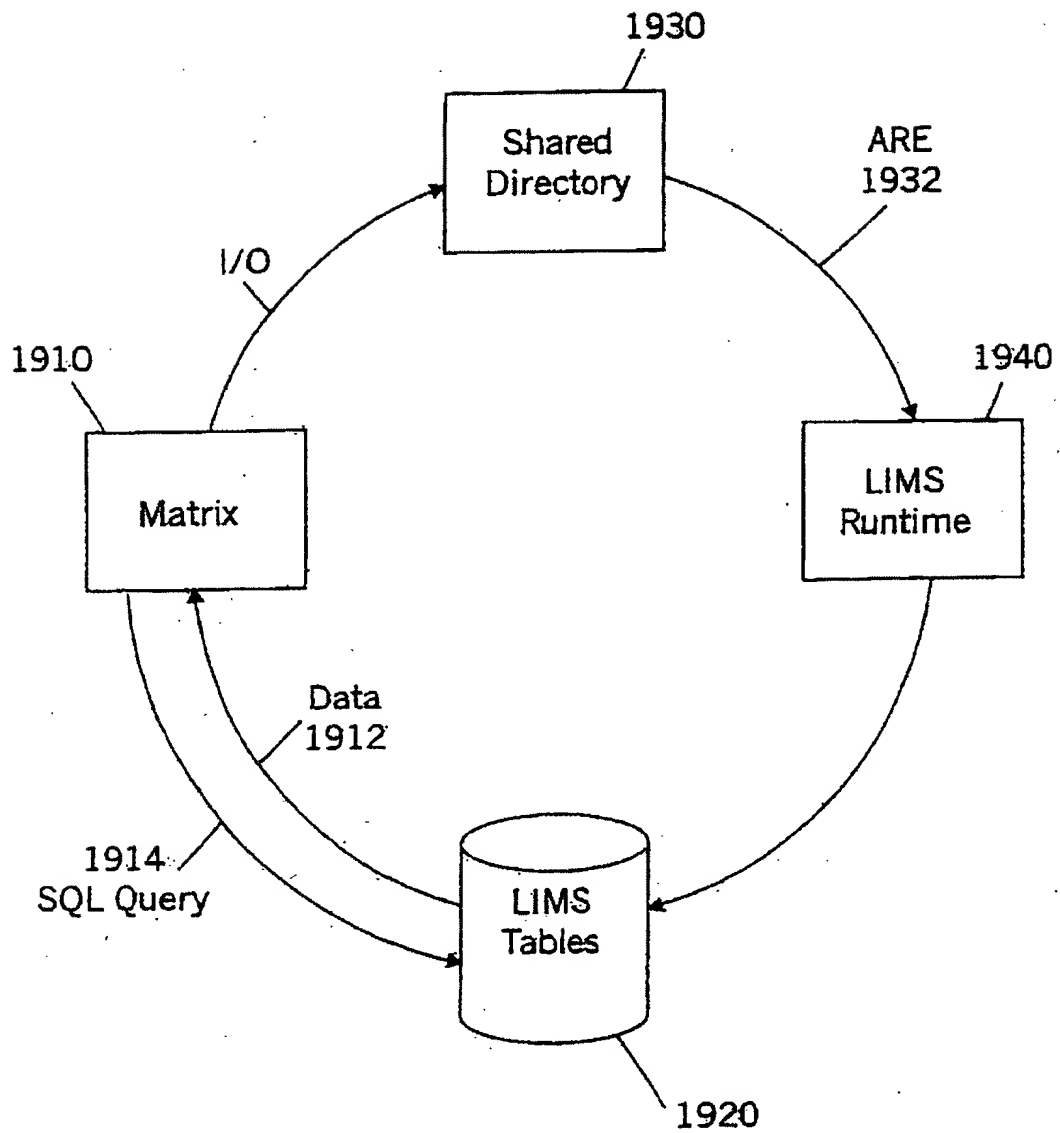


FIG. 19

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Matrix

File Tools Help

Selection

Container ID

100084320

Operation

02/19 | ARABID OP PLATE 4

Component

Length of primary root

Matrix Input

200047242	1	200047243	1	200047244	2	200047245	1	200047246	3	200047247	3	200047248	3	200047249	3	200047250	3	200047251	3
-----------	---	-----------	---	-----------	---	-----------	---	-----------	---	-----------	---	-----------	---	-----------	---	-----------	---	-----------	---

Status

Upload Status

MX-03130012480871.are

Measurement Units for the Component [Length of primary root], are in mm

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001247321.0.7

FIG. 20

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File Tools Help

Selection

Container ID

100084316

Operation

02/18 | ARABID OP PLATE 4

Component

Length of primary root

Matrix Input

Status

Upload Status

MX-03130012480871.are

Measurement Units for the Component [Length of primary root], are in mm

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001247321.0.7

FIG. 21

Matrix

File Tools Help

Selection

Container ID

100084316

Operation

02/18 | ARABID OP PLATE 4

Component

Length of primary root

Matrix Input

Status

Upload Status

MX-03130012480871.are

Measurement Units for the Component [Length of primary root], are in mm

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001247321.0.7

FIG. 22

Matrix

File Tools Help

Selection

Container ID

100084318

Operation

02/19 | ARABID OP PLATE 4

Component

Length of primary root

Matrix Input

Status

Upload Status

MX-03130012544058.are

MX-03130012494154.are

MX-03130012480871.are

Measurement Units for the Component [Length of primary root], are in mm

Commands

Set Defaults

Commit

Reset

Options

Exit

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001247321.0.7

FIG. 23

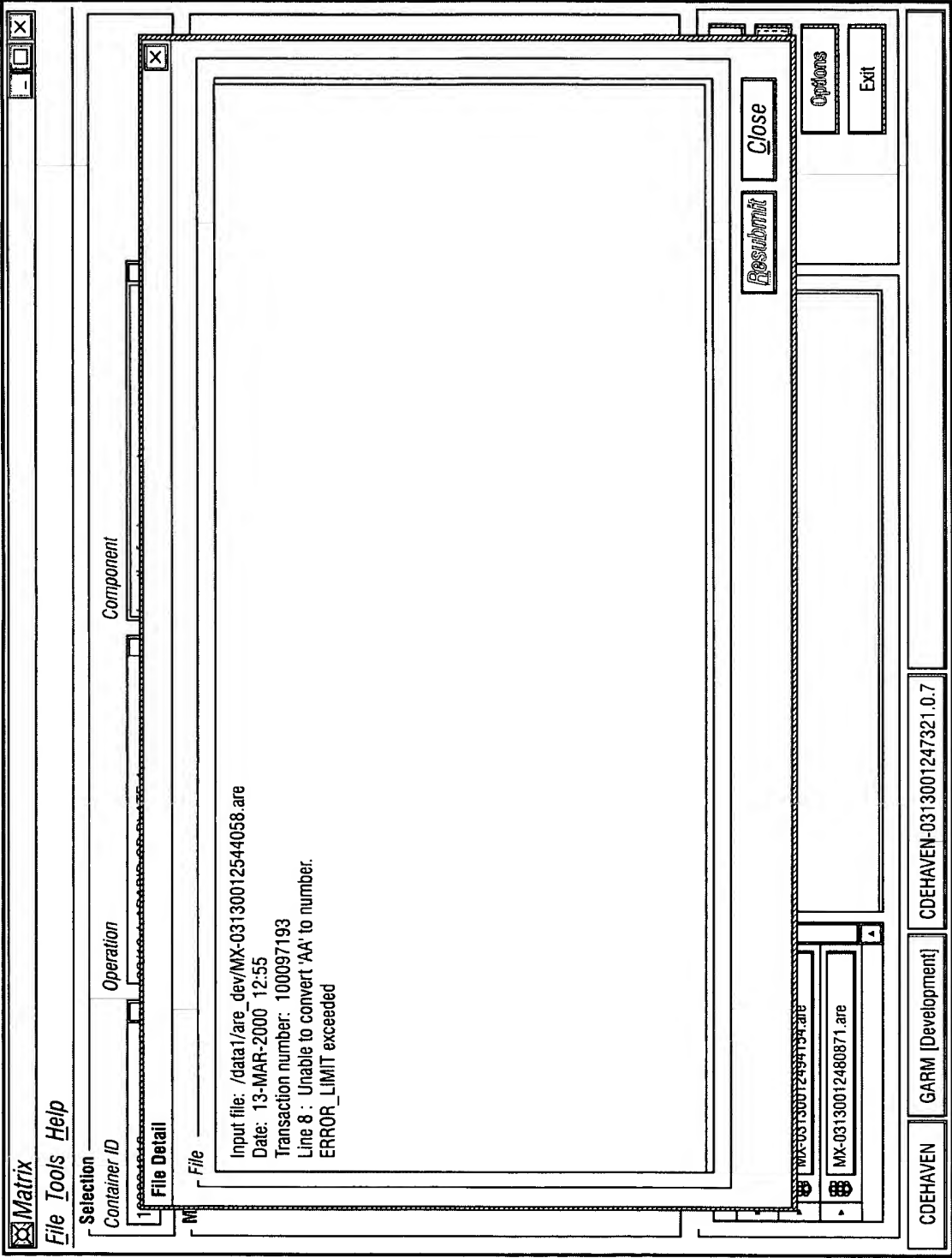


FIG. 24

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Matrix

FileToolsHelp

Selection

Container ID

100084318

Operation

02/19 .I ARABID OP PLATE 4

Component

Seedling color

Matrix Input

Status

Upload Status

MX-03130012563529.are

MX-03130012544058.are

MX-03130012494154.are

CDEHAVEN

GARM [Development]

CDEHAVEN-0313001247321.0.7

Commands

Set Details

Commit

Reset

Options

Exit

FIG. 25

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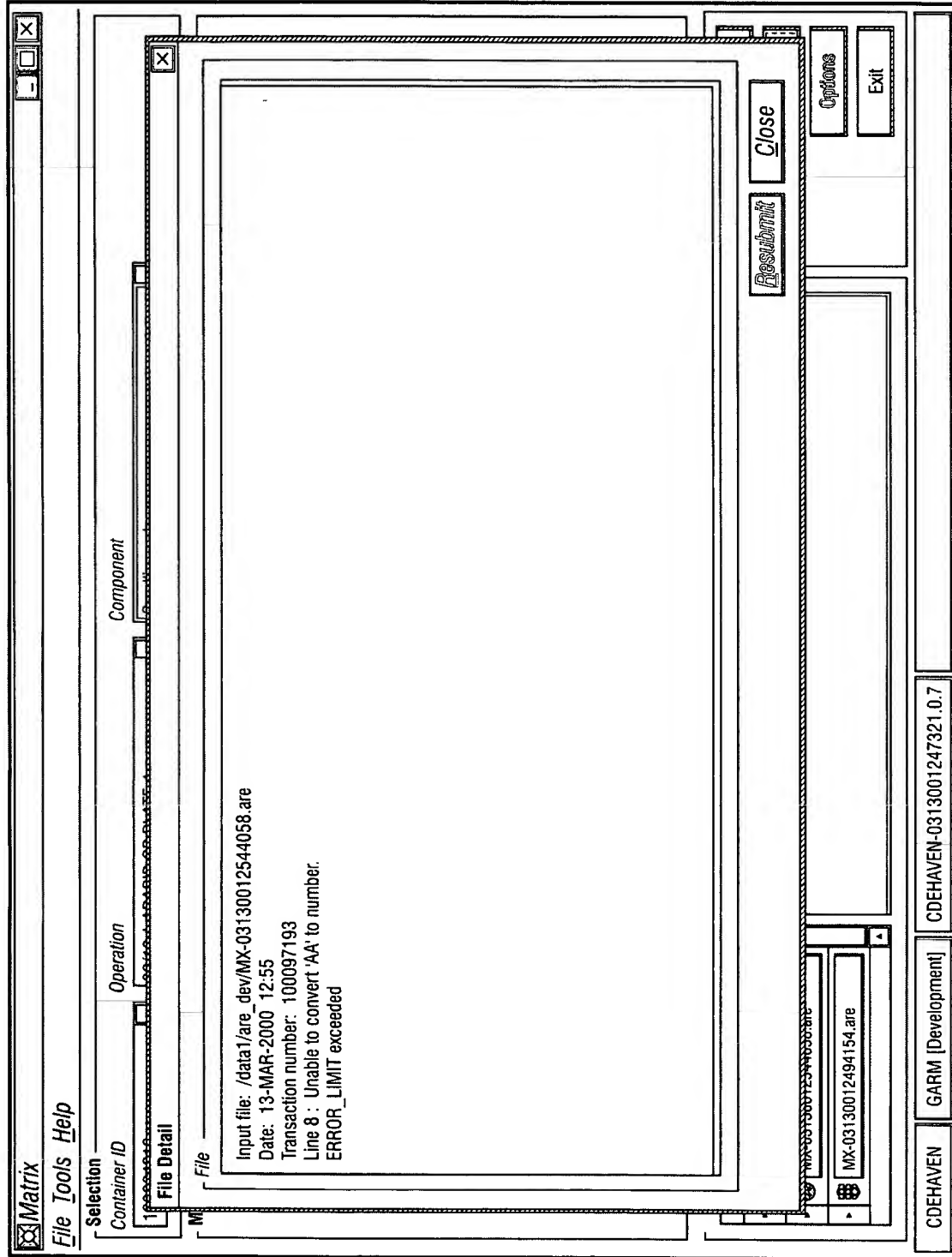


FIG. 26

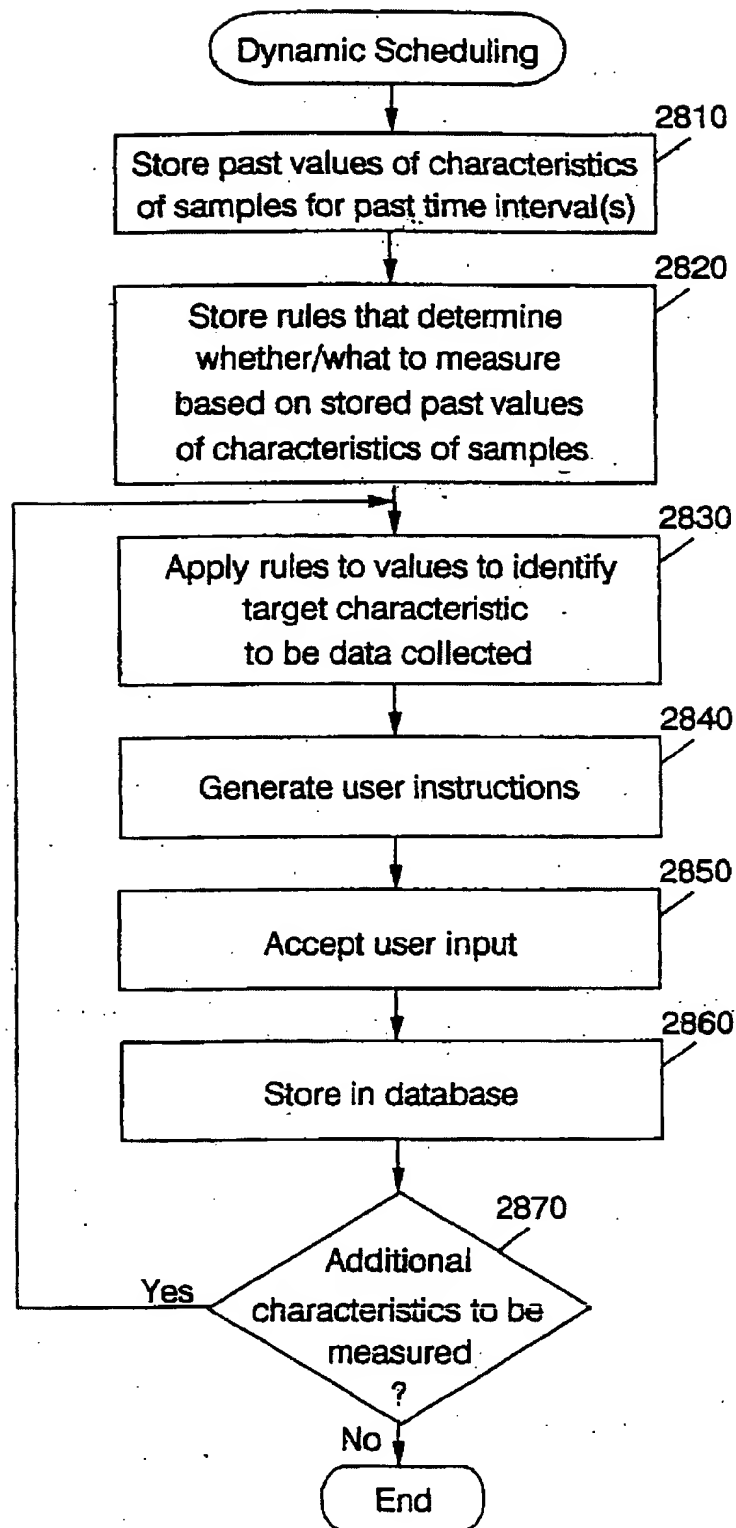


Static Measurement Plan for  
Wild-Type



Data	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
A									
B									
C									
D									
E									
F									
G									
H									
I									

FIG. 27

**26/33****FIG. 28**

# Variable Measurement Plan for Mutants



Data	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
A									
B									
C									
D									
E									
F									
G									
H									
I									

FIG. 29

# Extinguishing a Measurement



Data	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
A			No	No	No	Yes	(Yes)	(Yes)	
B									

FIG. 30

# Starting a Measurement



Data	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
A			No	No	No	Yes	(Yes)	(Yes)	
B						No	No	Yes	

FIG. 31

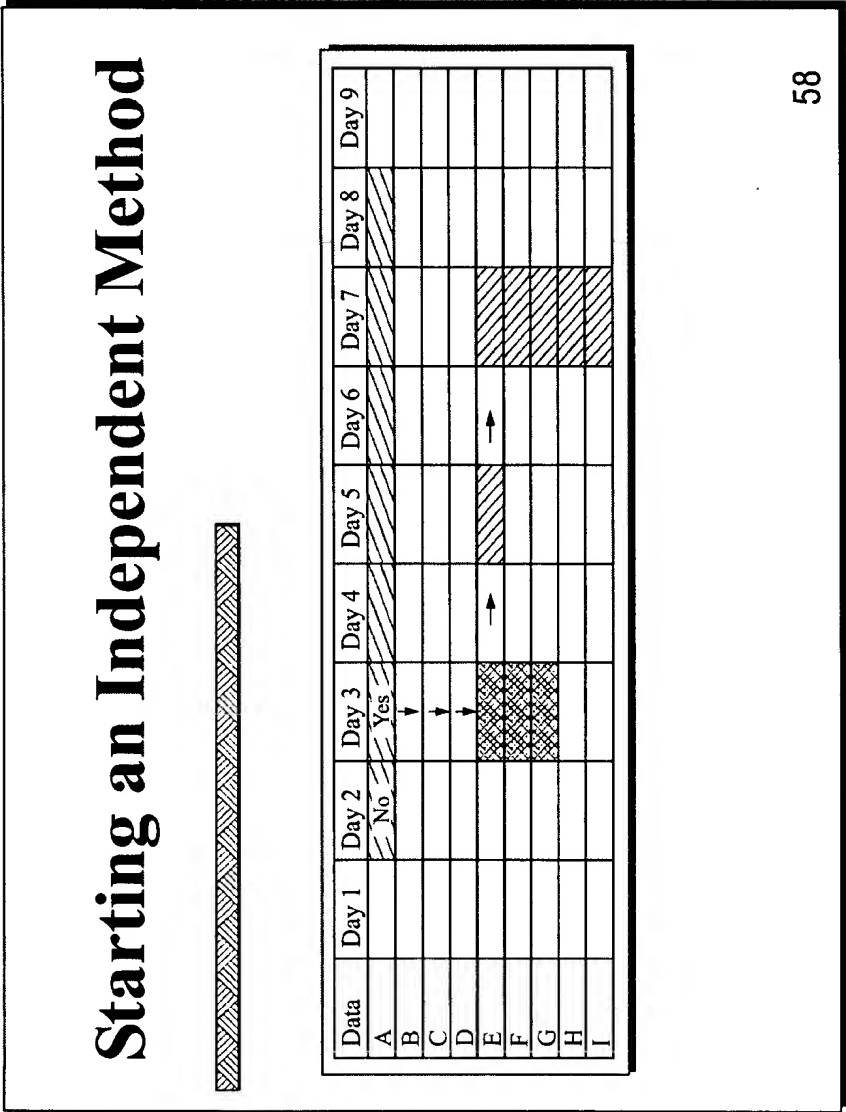


FIG. 32

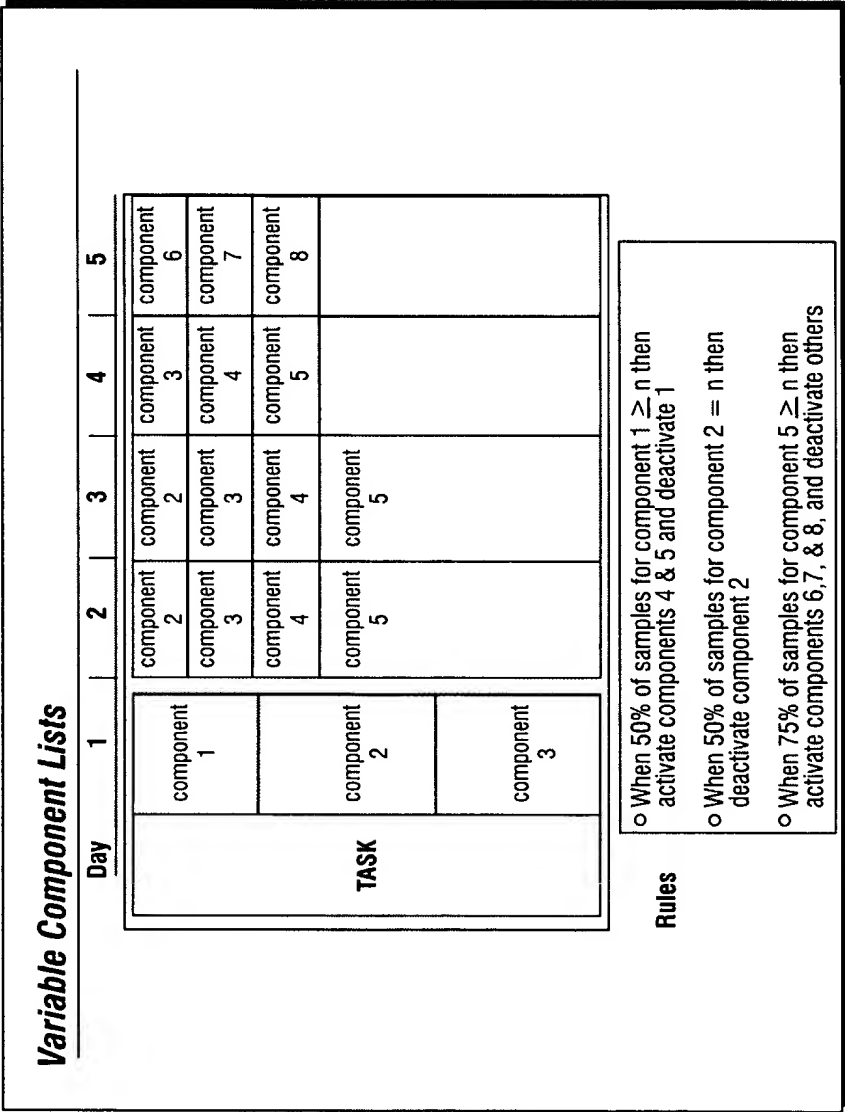
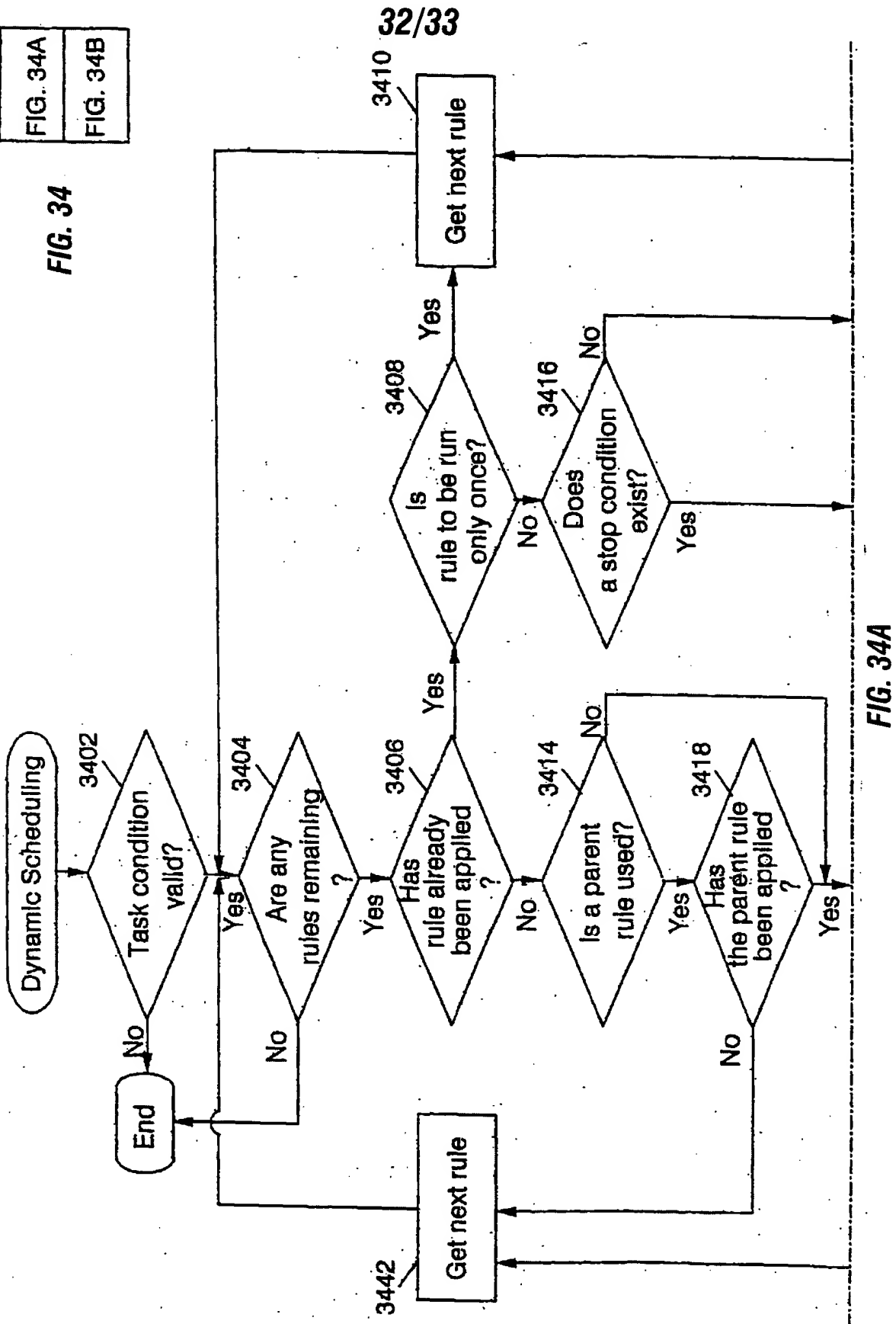


FIG. 33

FIG. 34A
FIG. 34B

FIG. 34





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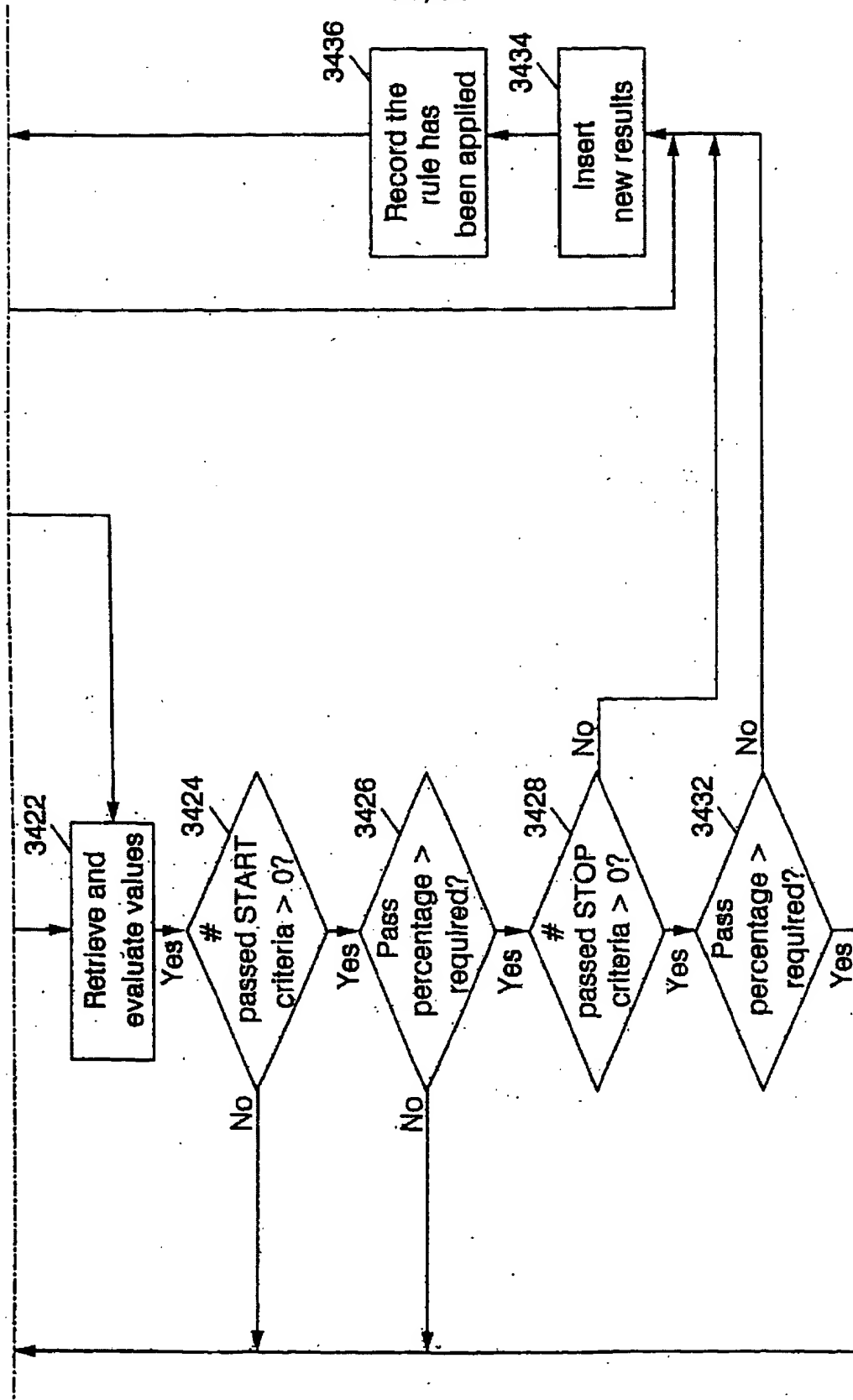


FIG. 34B